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| 09/484,612 | 01/18/2000 | Joanna Qun Zang | CISCP130/1343 | 9893 |

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| EXAMINER | |
|---|---|
| BAYARD, EMMANUEL | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2631 | |

DATE MAILED: 03/10/2004 14

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/484,612 | Applicant(s) ZANG ET AL. | |
|---|---|---|---|
| | Examiner Emmanuel Bayard | Art Unit 2631 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. This is in response to amendment filed on 12/8/03 in which claims 1-59 are pending. The applicant's amendments have been fully considered but they are moot based on the new ground of rejection.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Unger et al U.S. Patent No 6,230,326 B1.

As per claims 1, 7, 8, 12, 14, 22, 24-25, 29, 32, 34, 37, 39, 44, 46, 51, 54 and 58, Unger et al discloses a method of providing backup service to a group of cable modem on a cable network having a working CMTS providing service to the group of cable modems and having a protecting CMTS available to take over service to the group of cable modems, the method

comprising: receiving information about the status of the group of cable modems (see fig. Fig.1 elements (104a-104b) from the working CMTS (see element 103) to thereby synchronize the protecting CMTS (see element 102) to the working CMTS in response to a change in configuration data pertaining to the group of cable modems associated with the working CMTS, or discovery of a new protecting CMTS (see col.1, lines 30-50 and col.3, lines 2-35); determining that the protecting CMTS (102) is to take over service to the group of cable modems (see fig.3 and col.4, lines 5-35); and taking over service to the group of cable modems (see col.4, lines 5-35).

As per claim 2, Unger et al inherently teaches, wherein receiving information involves receiving a synchronization message from the working CMTS.

As per claim 3, Unger et al inherently teaches, wherein the synchronization message includes MAC and IP addresses of the cable modems in the group of cable modems.

As per claim 4, Unger et al inherently teaches, wherein the synchronization message includes DOCSIS parameters for the cable modems of the group of cable modems.

As per claim 5, Unger et al inherently teaches updating a database of the protecting CMTS with the received information.

As per claim 6, Unger et al inherently teaches prior to receiving information about the status of the group of cable modems, becoming available to take over service from the working CMTS, wherein the information about the status of the group of cable modems includes an entire set of synchronization data for the group of cable modems from the working CMTS.

As per claim 9, Unger et al inherently teaches providing service to a second group of cable modems from the protecting CMTS.

As per claim 10, Unger et al inherently teaches, wherein the protecting CMTS does not provide service to a second group of cable modem.

As per claim 11, Unger et al inherently teaches, wherein determining that the protecting CMTS is to take over service to the group of cable modems comprises determining that the working CMTS is not responding to the protecting CMTS or is not providing signals to a designated node on the cable network.

As per claim 13, Unger et al inherently teaches, wherein determining that the protecting CMTS is to take over service to the group of cable modems comprises receiving notification from a network node that a downstream signal from the working CMTS is no longer being received.

As per claim 15, Unger et al inherently teaches, wherein the working CIVITS and protecting CMTS are separate CMTS interfaces provided on at least one CMTS chassis.

As per claim 16, Unger et al inherently teaches, wherein service to the group of cable modems is switched from the working CMTS to the protecting CMTS without requiring that the group of cable modems to change their settings.

As per claim 17, Unger et al inherently teaches, further comprising sending synchronization information, regarding the group of cable modems, to the working CMT5 aver the protecting CMTS takes over service to the group of cable modems.

As per claim 19, Unger et al inherently teaches, wherein the CMTS apparatus is a complete CMTS or a portion of a CMTS.

As per claim 20, Unger et al inherently teaches, wherein the CMTS apparatus is a line card.

As per claim 21, Unger et al inherently teaches, wherein at least one of the processors and the memory are configured or designed to receive the synchronization data in the form of a synchronization message specifying at least one of addresses and operating statuses of one or more of tile cable modems in the group of cable modems.

As per claim 23, Unger et al inherently teaches, wherein at least one of the processors and the memory are configured or designed to take over responsibility for service to the group of cable modems upon determining that the working CMTS is or will become unavailable to service the group of cable modems.

As per claim 26, Unger et al inherently teaches, wherein the instruction for receiving information involves receiving a synchronization message from the working CMTS.

As per claim 27, Unger et al inherently teaches, further comprising instructions for updating a database of the protecting CMTS with the received information.

As per claim 28, Unger et al inherently teaches, further comprising the following instructions: prior to receiving information about the status of the group of cable modems, becoming available to take over service from the working CMTS, wherein the information about the status of the group of cable modems includes an entire set of synchronization data for the group of cable modems from the working GMTS.

As per claim 30, Unger et al inherently teaches, further comprising instructions for providing service to a second group of cable modems from the protecting CMTS.

As per claim 31, Unger et al inherently teaches, wherein the instructions for determining that tire protecting CMTS is to take over service to the group of cable modems comprises

instructions for determining that the working CMTS is not responding to the protecting CMTS or is not providing signals to a network node on the cable network.

As per claim 32, Unger et al inherently teaches, further comprising instructions for sending synchronization information, regarding the group of cable modems, to the working CMTS after the protecting CMTS takes over service to the group of cable modems.

As per claim 35, Unger et al inherently teaches, wherein the CMTS apparatus is a complete CMTS or a portion of a C1ITS.

As per claim 36, Unger et al inherently teaches, wherein at least one of the processors and the memory are configured to send the synchronization data in the form of a synchronization message specifying at least one of addresses and operating statuses of one or more of the cable modems in the group of cable modems.

As per claim 38, Unger et al inherently teaches, wherein at least one of the processors and the memory are configured or designed to send a SWITCH RFQ message indicating that the working CMTS wishes to have the protecting CMTS take over service to the group of cable modems.

As per claim 40, Unger et al inherently teaches, wherein sending the synchronization data comprises sending a synchronization message containing the synchronization data.

As per claim 41, Unger et al inherently teaches, wherein the synchronization message includes MAC and if addresses of the cable modems in. the group of cable modems.

As per claim 42, Unger et al inherently teaches, wherein the synchronization message includes DOCSIS parameters for the cable modems of the group of cable modems.

As per claim 43, Unger et al inherently teaches determining that the protecting CMTS has become available to provide service to the group of cable moderns, and wherein sending the synchronization data comprises sending information pertaining to all curt parameters of the group of cable modems in order to allow the protecting CMTS to provide service to the group of cable modems.

As per claim 45, Unger et al inherently teaches, wherein determining that the protecting CMTS should take over service to the group of cable modems comprises receiving notification from a network node that a downstream signal from the working CMTS is no longer being received.

As per claim 47, Unger et al inherently teaches, wherein notifying the protecting CMTS comprises sending a switch request message to the protecting CMTS.

As per claim 48, Unger et al inherently teaches, wherein the working CMTS and protecting CMTS are separate CMTS interfaces provided on at least one CM-TS chassis.

As per claim 49, Unger et al inherently teaches, wherein service to the group of cable 3nodems is switched from the working CMTS to the protecting CMTS without requiring that the group of cable modems to change their settings.

As per claim 50, Unger et al inherently teaches receiving synchronization information, regarding the group of cable modems, from the protecting CMTS after discontinuing service to the group of cable modems.

As per claim 52, Unger et al inherently teaches, wherein the instructions for sending the synchronization data comprises sending a synchronization message containing the synchronization data.

As per claim 53, Unger et al inherently teaches, instructions for determining that the protecting CMTS has become available to provide service to the group of cable modems, and wherein the instructions for sending the synchronization data comprises instructions for sending information pertaining to all current parameters of the group of cable modems in order to allow the protecting CMTS to provide service to the group of cable modems.

As per claim 55, Unger et al inherently teaches, wherein the instructions for determining that the protecting CMTS should take over service to the group of cable modems comprises instructions for receiving notification from a network node that a downstream signal from the working CMTS is no longer being received.

As per claim 56, Unger et al inherently teaches, wherein instructions for notifying the protecting CMTS comprises instructions for sending a switch request message to the protecting CMTS.

As per claim 57, Unger et al inherently teaches, instructions for receiving synchronization information, regarding the group of cable modems, from the protecting CMTS after discontinuing service to the group of cable modems.

As per claim 59, Unger et al inherently teaches, wherein the network is a wireless network.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fijolek et al U.S. Patent NO 6,510,162 B1 teaches a system and method for managing channel.

Quigley et al U.S. patent No 6,650,624 B1 teaches a cable modem apparatus and method.

Arutyunov U.S. Patent NO 6,611,868 B1 teaches a method and system for automatic link hang up.

Bernath et al U.S. patent NO 6,556,591 B2 teaches a method and apparatus for upstream burst.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 703 308-9573. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 703 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard
Primary Examiner
Art Unit 2631

Friday, March 05, 2004